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The chairman of the California State Advisory Council on Educational Research reports on progress made in California in coordinating educational research

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THE EDITORS SAY:

Graduate Research Is Important!

WE WONDER as we prepare each May issue of the *Journal* whether our listing of the numerous theses and dissertations completed in California teacher education institutions is an adequate tribute to the contribution of these graduate studies? Editorially, we feel that special mention is due those who, year in and year out, undertake tasks which are regarded in too many cases as insignificant research carried on merely to satisfy a degree requirement.

We began publishing the annual classified bibliography of graduate theses and dissertations in Education of California colleges and universities in 1950. The number of such studies reported for the three years (1949, 1950 and 1951) approaches the 1300 figure. No one is in a position to evaluate the worth of these graduate studies, but we venture the opinion that they have contributed materially to a better understanding of current issues relating to the schools. Some of the studies, especially dissertations, provide needed data not elsewhere available. Occasionally, such studies serve as the basis of new textbooks which influence professional thinking and practice.

We wonder, in considering the current controversy as to whether education should be looked upon as a "science," if the quality of graduate research as herein reported does not entitle us to qualify as one of the recognized disciplines. Genuine problems have been identified; they have been studied and, to some extent, controlled for analysis. In many cases, genuine solutions have appeared; in others, hypotheses and possible trends have been advanced. Isn't this the general structure of research of other disciplines that are "labeled" as *sciences*? Within the limitations of the existing measuring devices, the controllability of the phenomena, and the valid purposes of the research, scientific procedures have obtained.

We could wish that we had more precise and definite ways to know and to show the extent to which education has "prospered" as a result of the research efforts of graduate students. There is every reason to believe that progress in all areas of education has been influenced by such studies. But, even though we lack the precision desired in the evaluation of educational progress, we need not be afraid to hold up for notice and acclaim the thousands of individually "small matches" which cast over the educational scene a glow of illumination that in their absence would leave an abysmal pit of darkness in its place.

Continued on page 112

Coordination of Educational Research On A Statewide Level *

FRANK W. PARR

California Teachers Association

THOSE of us in California who are engaged in educational research are pleased that the program committee for this conference selected as a theme for the talks at this dinner meeting, "Coordination of Educational Research." For the past year or two, we have been devoting considerable thought to this problem. We may be more conscious than some of the other states of the need for coordinating our research efforts. The reason for this is somewhat obvious: we have so many organizations and agencies interested in educational research. Let me list just a few of them to illustrate my point:

1. The State Department of Education maintains a research bureau;
2. Many of the larger school districts have research departments;
3. Several of the county offices have established research departments;
4. The colleges and universities carry on considerable research, both by faculty and graduate students;
5. The California Teachers Association has a sizeable staff engaged in educational research;
6. The California Committee for the Study of Education has sponsored many worthwhile research projects in recent years;
7. Several statewide professional organizations conduct research
 - a. CASA (school administrators)
 - b. CAESP (elementary principals)
 - c. CASSP (secondary principals)
 - d. CSSA (supervisors)
8. Two non-professional agencies are also actively interested in conducting research relating to the schools:
 - a. California Taxpayers Association, and
 - b. California State Chamber of Commerce.

* Talk given at Dinner Meeting of American Educational Research Association, Los Angeles, March 10, 1952.

Frank W. Parr is assistant secretary and director of research, California Teachers Association. He had formerly served as executive secretary of the Oregon Education Association following 13 years of teaching at Oregon State College. Dr. Parr is chairman of the California State Advisory Council on Educational Research, and editor of this Journal. His Ph.D. was earned at the University of Iowa in 1929.

Because of the large number of agencies doing educational research, and the almost certain duplication of effort, it was deemed wise in California to establish a statewide coordinating body. This was done in January 1948 under the sponsorship of the California Teachers Association. I shall spend the balance of my allotted time in describing the activities and plans of the "State Advisory Council on Educational Research" which has attracted so much attention in California and elsewhere.

State Advisory Council on Educational Research

Recognizing its obligation to assist in improving the quantity and quality of educational research in the state, the California Teachers Association conceived the idea of setting up a statewide committee to promote the coordination of research among the many organizations and agencies engaged in such activity. A preliminary inquiry sent to a number of outstanding California research persons provided assurance that such a committee was needed. Great care was taken in the selection of the personnel of the committee which, from the outset, has been designated as the *State Advisory Council on Education Research*. The original choice of personnel sought to insure a proper cross-section of research interests, but as time went on other persons have been added to the Council. The original group included the following personnel:

1. One person from each of the four major universities (UC, UCLA, USC, and Stanford University);
2. One person from each of the research departments of four of the largest school districts (Los Angeles, San Francisco, Oakland, and Pasadena);
3. One person representing the research department of a county school office (Los Angeles County);
4. One person representing the Bureau of Education Research of the State Department of Education; and
5. Two persons, who serve as chairman and secretary of the Council, from the Research Department of the California Teachers Association.

It is interesting to note that no one declined the invitation to serve on the Council. In addition to the personnel listed above, two other members have been added to the Council during the past three years. One person was selected to represent the state colleges and independent colleges; the other addition to the Council was the executive secretary of the California Association of School Administrators. The present personnel, therefore, includes fourteen educators.

Program and Activities of the Council

Since its establishment in 1948, the Council has been meeting four times each year. The meetings are usually of a full-day duration and are

held in San Francisco and Los Angeles. All Council expenses are paid by the California Teachers Association.

As pointed out earlier in this talk, the State Advisory Council was established primarily for the purpose of fostering the coordination of educational research in California. It was generally agreed at the outset, however, that such coordination would not be achieved through mandate or coercion, but rather through wise stimulation and leadership. Furthermore, it was recognized that the desired goal in a state as large as California might best be achieved through a variety of activities rather than by means of a frontal attack. Consequently, the Council spent most of its first year studying the possibilities and opportunities of effecting statewide coordination of research. I shall describe briefly some of the specific activities and achievements of the Council during the past three years.

Before any degree of statewide coordination can be effected, those engaged in research must be made aware of the need for such a move. It was deemed necessary, therefore, to provide an opportunity for *all* interested research personnel to get together to discuss the problem. The Council in October 1949 sponsored the first annual statewide conference on educational research. During the day-and-a-half meeting, some 75 persons assembled at Santa Barbara to consider timely problems in the field of educational research. The meeting was so successful that the attendants voted unanimously in favor of making the conference an annual affair. The 1950 conference attracted so many persons that the Advisory Council expressed the fear that the meeting might have become too popularized. One of the principal topics discussed at the 1951 conference was "the co-ordination of educational research in California." In the three annual conferences held to date, this subject has assumed greater and greater attention.

Another significant project undertaken by the Council was the establishment in January 1950 of the research journal, the *California Journal of Educational Research*, which is now in its third year of publication. The magazine reports on worthwhile educational research, both from California and elsewhere. The Advisory Council serves as Editorial Board for the magazine. One of the features, which is especially appreciated by the subscribers, is the publication in the May issue of an annual classified bibliography of all theses and dissertations completed at California colleges and universities. The *Journal* has been well received and is believed to be fulfilling an important role in interpreting significant educational research.

Another Council activity which has helped to unify and crystallize the thinking of research people was the accumulation through surveys of information regarding the nature of research completed and in progress in the various school districts. Reports of these surveys have been furnished

to school district research personnel. The Council also conducted a survey to get first-hand information on research facilities and staffs in California school districts. The report of this survey aided a number of districts and counties in improving their research departments.

Sub-committees At Work

Of special interest to my audience should be a report on the most recent activities of the Advisory Council. Realizing that the Council is now sufficiently known to be in a position to exert influence statewide, five Council sub-committees are at work on the following projects:

1. *Improving norms of published tests.* This committee under the direction of Dr. Alfred Lewerenz of Los Angeles City Schools has stimulated so much interest in the problem that the U. S. Office of Education is giving serious consideration to the idea of sponsoring a national conference. Properly planned, the conference would bring test makers and test users together to discuss needed improvements in published tests. The conference will probably be held next summer or early fall in Chicago.
2. *Coordination of educational research in California.* This committee, under the chairmanship of Dr. Lillie L. Bowman of San Francisco, is studying ways and means of effecting desirable coordination within the state. Two proposals are now being given serious consideration: (a) the setting up of a depository or clearing house where all important California research studies and reports will be catalogued and filed; and (2) the formulation of a list of possible research problems that would lend themselves to statewide study on a co-operative basis.
3. *Sampling techniques for educational surveys.* This committee, under the chairmanship of Dr. Harold D. Carter of the University of California, Berkeley, has the responsibility of outlining proper sampling techniques to guide California research workers. Although the AERA has devoted attention to this problem, the Council felt that the sub-committee could render a service by developing a set of techniques for the guidance of students and school research personnel.
4. *Preparation of school research workers.* This committee, under the chairmanship of Dr. Henry W. Magnuson of the State Department of Education, is preparing a recommended program of training for school research workers in California. The program, when approved, will probably be discussed with schools of education in the universities that prepare research personnel. It is believed that such a recommended program will be welcomed and that it will help to improve the quality of educational research in the state.
5. *Basic principles to guide the educational research worker.* This committee, under the chairmanship of Dr. Harry W. Smallenburg of the Los Angeles County Schools, is preparing a list of basic principles which should be most useful to beginning research workers. The preliminary list has been compiled and is being sent to experienced research personnel for evaluation and refinement. When completed, the list will be published and distributed to all colleges, universities, and school districts where research departments exist.

Progress Discernible

It should be evident from what has been said that California has been aware of the need for coordinating research effort, and that steps have been taken to promote such a move. In concluding this talk, it might not be out of order to describe a few areas in which cooperation has been effected in California.

One of the most encouraging signs in our state has been the close working relationship between the State Department of Education and the California Teachers Association. The two agencies have cooperated in conducting a number of surveys in recent years; e.g., survey of building needs which furnished the data needed to determine how large a state bond issue should be presented to the people for adoption (1949), and the survey of class size and teacher load which is now being processed at the State Department of Education. Another example of cooperation is the annual study of salaries of certificated personnel in California. The Bureau of Education Research of the State Department of Education each fall collects salary reports from every California school district. Duplicate IBM runs of the salary data are sent to the California Teachers Association Research Department where detailed reports, showing salary distributions for each school district, are prepared for general consumption. The State Department of Education, in turn, prepares its own report (*Salaries of Certificated Employees*) which includes *statewide distributions* of salaries for the various certificated groups. The State Department report also shows the trend of salaries for a period of years.

Another evidence of cooperative effort is the close working relationship between the major universities and the California Teachers Association. Each year the director of research of the California Teachers Association is invited to discuss areas of needed research before graduate seminars. Invariably, one or more of the suggested problems are selected by graduate students as possible dissertation topics. The plan proves to be mutually beneficial in that it enables the California Teachers Association Research Department to foster many more studies than could be completed by its limited staff and, at the same time, provides these graduate students with worthwhile research problems.

These are only a few examples of the splendid working relationship which exists between the various research agencies in California. We do not claim to be doing anything particularly unique, but we have tried to report on what we hope is a good start toward the coordination of educational research statewide. Much remains to be done, but it is encouraging to report that the avenues of cooperative action have been mapped out.

Democratic Action In Curriculum Development: Opportunities and Problems

LESTER W. RISTOW

Compton (California) Union High School District

THE curriculum development program of the Compton Union High School District has produced no major curriculum changes, thus far, but it has made an impressive beginning in democratic school administration by attempting to involve the faculty in the program. More important, it has revealed itself as a potentially powerful force for progress. The project has shown that democratic action in curriculum development is not easily initiated and cannot be carried on without the provision of a large amount of time and a great deal of training for participants.

The District

The Compton area is essentially a residential community with relatively large school enrollment and low assessed valuation. The population has increased well over 150 per cent since 1945 and is still growing. The provision of adequate educational facilities has been hampered by insufficient revenue, an earthquake, depression, the austerity of the war period, and by post-war inflation. Nevertheless, the schools have offered excellent training in the basic skills under teachers of superior qualifications. For two decades prior to 1951 the secondary schools were organized on the 6-4-4 plan and during these years the junior high schools maintained a basically unchanged curriculum emphasizing the acquisition of college entrance requirements.

The Need for Curriculum Revision

Faced with the problem of increasing enrollments and already inadequate facilities, the board of trustees authorized a complete school survey,

Lester W. Ristow is a teacher of English in the Compton, California, Union High School District, where he has taught for the past five years. His previous experience includes elementary and junior high school teaching. He also served for one year as supervisor in the U. S. Army School for illiterates. Dr. Ristow completed his Ed.D. at the University of Southern California in 1951.

which was completed in 1949.¹ Among other remarks concerning the curriculum, the survey committee wrote on page 78 of their report:

The committee does not find that adequate provision has been made for competent leadership in the field of curriculum research and study. . . . a strong recommendation is made that provision be made for curriculum research under competent leadership to be supplied by additional personnel assigned specifically to this function. This recommendation grew out of a conviction that the present curriculum is not well adapted to the needs of either the students or the community.

Shortly after the completion of the survey a rapidly occurring series of events resulted in the reorganization of the school system according to the 6-3-3-2 plan. The need for a revised and more adequate curriculum became apparent and urgent.

The Curriculum Revision Program

A two-step plan for curriculum revision was set into operation during the 1950-51 school year. The plan proposed, first, to determine the nature of existing practices; and, second, to develop a curriculum to meet the needs of the new three-year junior and senior high schools. To accomplish the first step each teacher was given a mimeographed form requesting a description of the courses being taught, with comments concerning the degree to which these courses were meeting the objectives listed in *A Framework for Public Education in California*.² Teachers were given a minimum of instruction concerning completion of the forms, no explanation of their purpose, and no orientation regarding the over-all plan. Many teachers did not understand the forms and were too harried by over-work and more imminent problems to devote much attention to the request.

Initial work for the second step was carried on by selected teachers, administrators, and supervisors in a workshop which occupied about nine hours of the week preceding the opening of school in September 1951. The objective was to develop an outline of a course of study for each subject in each high school year. To complete the project, a series of three curriculum-committee meetings was scheduled at two-week intervals, each meeting to last from 2:00 until 3:45 p.m. Every teacher in the high school district was expected to take part in these committee meetings; to

¹ Morissett, Lloyd N., and Sexon, John A., *A Survey of the Compton Union High School District and Compton Junior College District*. Los Angeles, June, 1949.

² *A Framework for Public Education in California*, A Bulletin of the California State Department of Education, Vol. XX, No. 6. Sacramento, California, Nov., 1950.

encourage participation three points of institute credit was granted,³ and school was dismissed at 1:30. All teachers met together for the first hour of the first meeting to be oriented concerning the purpose of the meetings and to receive procedure instructions. Each teacher was issued a copy of *A Framework for Public Education in California*, a form containing the recommendations from the workshop, and a work-sheet providing space for objectives, scope, content, and sequence. Teachers were then directed to separate committee meetings dealing with their own subject area. Administrators and supervisors were assigned to each of the committees, but were cautioned to take no part in committee proceedings. Committees elected a chairman and secretary, carried on discussion in accordance with *Roberts' Rules of Order*, and approved recommendations by simple majority vote. The remaining two scheduled sessions were used to carry on the discussions in separate committee meetings and all recommendations were submitted to the curriculum department. Following the final committee meetings, two general meetings were held, at two-week intervals, to hear reports of committee action. At the general meetings, mimeographed copies of the complete course of study for each subject in each year were distributed and committee chairmen made brief oral reports.

Valuable Outcomes of the Program

One important outcome of the program was the feeling, on the part of the teachers, that their ideas were important to and respected by the administration. The belief that they had made a worthwhile contribution to the school program gave them a feeling of unity with the program. However, a number of teachers suspect that the only result will be much talk and publicity, reams of mimeographed material, plaudits for the curriculum department, but no real changes in practice. Many teachers have become aware of some of the problems in the field of curriculum and have been led to study and think about some of the research and the opinions of authorities. Committee discussions encouraged the formulation and modification of opinions and the interchange of experiences and ideas. Not the least valuable of outcomes was the realization that teachers can make worthwhile contributions and that the vast accumulation of experience and intelligence possessed by the combined staff is a powerful force for progress.

Significant Weaknesses of the Program

Outstanding among many weaknesses of the program was the attempt

³ In Los Angeles County each teacher is required to attend a sufficient number of institute sessions to earn ten points of credit per year.

to complete it in such a short time. Curriculum development cannot properly be encompassed by any finite segment of time because a suitable curriculum must be always in the process of developing, and the steps of its development must be constantly tested in practice. Throughout the program there was an abiding impression that a "dead-line" lurked ominously in the immediate future and, because of the limitation of time, many important discussions of interesting ideas were abandoned just as they approached the point of effective production.

Almost all committees were so large and so formally organized that discussion was rarely completed upon any issue. Recommendations were the result of a bare majority vote which was frequently taken before the issues were even clearly defined. Recommendations are neither valid nor effective when they represent mere majority opinion. Obviously, no curriculum can succeed in *practice* when a large minority disagrees with it in *principle*. Recommendations should represent consensus of the entire group, or, if they do not, should be accompanied by minority reports.

Election of permanent chairmen was unnecessary and undesirable because leadership would have emerged as discussion progressed and would have changed as conditions changed. Every committee member should have been recognized as a potential leader and led to realize that his leadership was needed and desired. Committees should have been limited to participating members because observers contribute nothing toward the solution of problems and may hamper committee action by their presence. Resource persons should be included as regular and equal members of the group; they should not be expected, nor allowed, to give a speech and then withdraw. Neither should they be expected to assume leadership; rather, they should take a place of equal status and responsibility among the membership making whatever contributions they are capable of making.

The amount of working time per meeting could have been extended with profit, and progress would have been greater had there been less time intervening between meetings. Attitude toward the program would have been improved if all meetings had not been scheduled at the end of the day. Participants arrived in a state of fatigue, beset by many other problems, and anxious to "get it over with." More efficient use of the wide and varied interests and experiences of teachers could have been made by providing an opportunity to work on more than one committee.

Orientation for the program was to inadequate that many teachers did not understand the purpose and plan. Too many felt bound by the limits of existing practices and tradition and many discussions never progressed beyond consideration of minor alterations in the sequence of the existing curriculum. The base of representation on committees should have been extended to include pupils, parents, representatives of business, labor, and

professional groups from the community, and interested personnel from the custodial and clerical staff. All of these should be included as equally responsible and participating members of committees.

This project has clearly demonstrated that democratic action is not an item of issue, that it cannot be bestowed nor invoked, but must develop as committees mature and members learn to work together. No real progress can occur until committee members become acquainted with each other, with the problems, the facts, and the process of democratic action. *Curriculum development must begin with the education of committee members.*

DECLINE IN ILLITERACY

When figures on illiteracy were first reported in 1870 for persons over 10 years of age, the rate was 20 per cent; 11.5 per cent of the white population were illiterate and 81.4 per cent of the Negro population. By 1920 illiteracy for persons 15 years old and over had been reduced to 6.5 per cent and by 1930 to 4.8 per cent. Data for 1950 are lacking but the Census Bureau's most recent data, derived from a special study, show further reduction to between 3.0 per cent and 4.0 per cent in 1940 and to 2.7 per cent in 1947 for persons 14 years old and over.

In spite of this unusual record of social achievement, it must be noted that in 1947 there still were 2,750,000 Americans over 14 years of age who could not read or write in any language. Moreover, the percent of illiteracy among nonwhite population was 11.0 per cent—not merely 2.7 per cent—and for the resident of rural farm areas it was 5.3 per cent. — (Excerpt from "Schools and the 1950 Census," NEA Research Bulletin, Vol. 29, No. 4, December 1951, p. 164)

"During the last school year, it cost the people of the United States, on the average, \$198 to keep a child in school. This is about one dollar per day per child. It paid for the teachers. It kept the school building warm and lighted. It provided custodians to keep it clean. This modest sum defrayed also the cost of health supervision, recreational opportunities, and textbooks. It purchased materials for science laboratories, supplied library books, and sometimes transported pupils by bus to school. There are few services from which the customer gets so much for so little. One dollar per day per child." — (Excerpts from address, "Fundamentals for Tomorrow's Schools," by Dr. Willard E. Givens, presented March 10, 1952, at the 78th Annual Convention, American Association of School Administrators, Los Angeles)

A Salary Schedule With An Automatic Shift

ROBERT C. TITUS

Coalinga (California) Union High School

IT WAS probably inevitable that the principle of the automatic gear shift as applied to automobile operation would sooner or later pop up in the operation of a teachers' salary schedule. Popular approval of the smooth action of the automatic transmission, with its elimination of the convulsive jerks and sudden halts of gear shifting, has finally resulted in the development of a salary schedule designed to apply the principles of fluid drive to the shift from one salary schedule classification to another.

The automatic shift in the salary schedule operation is quite simple. It merely provides a salary compensation adjustment for each salary schedule unit presented, thus eliminating the delayed periods between salary schedule classifications. Each unit of salary credit presented each year by a teacher provides an automatic increase of \$10 in salary adjustment.

Like its automotive counterpart, the development of the automatic free wheeling shift from one salary classification to the next was an evolutionary process. It was the natural result of attempting to design a salary schedule which would provide the maximum encouragement for professional growth and improvement.

Three years ago the Board of Trustees of the Coalinga Union High School District in California requested the faculty and the administration of the junior college and the junior and senior high schools comprising the district to cooperate with the board in the development of a salary schedule. A salary committee of seven members was organized to include a member of the board, the school superintendent, and five representatives elected by the teachers. This committee followed the usual pattern of procedure in making an analysis of existing schedules and in making an intensive survey of the literature in the field.

Robert C. Titus is superintendent of the Coalinga (California) Union High School and Junior College, a position he has occupied for the past five years. He had previously served as superintendent of the Coronado Unified School District, and as assistant superintendent of the Alameda City Schools. Mr. Titus obtained his Master's degree at Stanford University in 1929.

All Teachers Participated

Probably the most interesting deviation in procedure was the method by which the committee included the entire teaching staff in the study. Many meetings were held to provide explanations and to obtain discussion and opinion. Detailed questionnaire were submitted and carefully analyzed to determine faculty reaction. Each item was resubmitted in different forms until a solution was reached which had the approval of at least three-fourths of the teaching group. The committee met frequently with the board in order to obtain board reaction to every item as the opinions of the teachers were analyzed. The resulting schedule with its rules and regulations was developed in this step by step method and was adopted with the approval of each member of the board, the superintendent, and every member of the faculty.

The starting point in the development towards the automatic shift from class to class was evident in the initial determination that the salary schedule should not only provide automatic annual increments, but should emphasize and compensate for the improvement of professional training. On this basis the schedule was designed to provide every encouragement for professional growth and, in a sense, required continued improvement of all teachers.

One of the most persistent reactions of the teachers was a definite objection to the usual 24 or 30 college units required to advance to higher schedule classifications. The typical schedule provided for three or four classifications with an average requirement of one additional year of college achievement between classifications. To the teachers this requirement was too great from the incentive standpoint. Frequent rechecks of opinion indicated that instead of 24 units with a \$200 or \$240 salary differential, a 12 unit spread with a \$120 differential was preferred. In fact, the final schedule was based on a six unit spread between classifications with a \$60 differential in salary.

With a university semester unit, or its equivalent, as the base, the schedule was an immediate success in meeting its major objective of gaining professional improvement. During the first summer after the schedule was adopted, 50 per cent of the entire faculty presented semester units for classification advancement with an average of $3\frac{1}{2}$ units per teacher. The trek to summer school was underway. During the second summer, 70 per cent of the teachers amassed an average of $6\frac{1}{2}$ units for salary adjustment.

At this point the salary committee, which had become a permanent organization serving as a salary study group and as an evaluation committee, resubmitted the entire schedule with its rules of operation to the faculty for review and evaluation. This action resulted in the usual revision, refinement, and improvement of the schedule and resulted in the

usual consideration of an increase in the monetary rate schedule. In the opinion survey, the committee found one challenging suggestion which indicated a need for a more immediate payment for salary schedule units earned.

Further investigation uncovered the fact that the University of California and a number of State Colleges limited summer school registration to 4 units. Under this restriction teachers were required to attend summer school for at least two summers before meeting the six unit salary classification requirement and receiving the \$60 salary adjustment. Teachers in attendance at other institutions were forced to take undesirable and unnecessary courses in order to eke out a six unit total. As a result of this situation, the teachers evidenced a desire for a smoother direct shift between salary schedule classifications.

How It Works

Thus the automatic shift was perfected and applied to the salary schedule. Each teacher is now classified as usual, but is given credit for plus one or more units up to five units. Presentation of six units usually meets the next higher classification requirement. A teacher in Class IV, with plus three units, receives the Class IV salary plus \$30. The classification by the evaluation committee is routine, the bookkeeping problem is simple, and the teachers glide from salary class to salary class on the fast pick-up of the "unit-o-matic" shift.

Having discovered the smooth operation and the exhilarating performance of the automatic shift, the salary committee found another situation where the application of the automatic shift principle was readily accepted by the board and teachers. The local salary schedule,¹ like most schedules, provided step by step annual increments within each particular salary classification until the maximum step was reached. This resulted in the usual traffic jam at the maximum step of the various classifications, particularly in classes III and VII which require six graduate units before advancement to the next class, and in class VI which is the highest class attainable without a masters degree.

However, the Coalinga schedule included an unusual clause which provided that "any teacher who shall have obtained maximum salary in any classification shall manifest his professional interest in meeting the six unit increment requirement every fourth and succeeding years." Meeting this "hurdle" requirement qualified a teacher for the \$100 automatic annual experience increment step. As the schedule had been designed on the basis of teacher opinion, this provision did not include a penalty

¹ A copy of the Coalinga salary schedule may be obtained on request.

clause providing for a reduction in salary whenever the four year increment requirement was not met. At the end of the first four year period, 85 per cent of the teachers on the highest step of the nine schedule classifications had met the six unit requirement voluntarily. The possibility of imposing a penalty for failure to meet the requirement was considered and rejected.

Teacher opinion indicated a lack of incentive in continuing to present six units each four years after a teacher reached the highest classification step. Again teacher and board common sense engineered a happy solution and the automatic shift principle was applied with the resulting provision that "each teacher on the highest step of any classification who presents an additional six units in the four year increment period shall be automatically advanced to the highest step on the next higher classification." On this basis the teacher glides through the maximum classification step traffic jam without shifting and automatically receives the \$60 salary advancement. Riding a modern engineering principle, the teacher henceforward approaches each four year classification stop signal with a six unit overdrive and floats from top classification step to top step automatically.

Next Step

Democratic processes may be slower than scientific research, but sincere and intelligent cooperation on the part of teachers, administrators, and school boards can equal engineering proficiency. The next step is to apply this cooperative procedure to a solution of the most important problem of improving instruction in the classroom.

THE EDITORS SAY: Graduate Research Is Important!

Continued from page 98

All of what we know for sure about education, and much that we suspect, has been brought into being and use by the accumulated study of such theses and dissertations as are reported annually in the *Journal*. Recognizing that many of these studies will have served little purpose other than to satisfy an academic requirement, we believe that this graduate research adds zest and flavor to our struggle to discover the truth. What's more important, these studies throw light upon some of the problems in education that would remain unsolved without the help of graduate students. More power to them!

Techniques and Findings of Student Follow-up Studies in California

KARL GUENTHER
Sacramento City Schools

MOST authorities agree that the school should know what happens to its graduates. One of the most effective ways in which the school can obtain this knowledge is to make a follow-up study of its graduates at regular intervals. An analysis of the findings and conclusions of a follow-up study can be used as the basis for guidance practice and curriculum revisions within the school. These ideas initiated the investigation of the techniques and findings of student follow-up studies in California.

The data upon which this study is based were derived from twenty-six investigations which were written in the form of theses at the University of California at Berkeley, Stanford University, University of California at Los Angeles, University of Southern California, and at the Claremont Colleges. The features, ideas, and techniques of these theses have been incorporated into a manual for making follow-up studies. There are two other studies of this type available. Edward Landy¹ in his *The Occupational Follow-up and Adjustment Services Plan* gives complex and detailed directions on how to make a questionnaire and personal interview follow-up of (1) former students and (2) employers of those students. Royce E. Brewster and Franklin R. Zeran have published an aid to directors of follow-up studies in a bulletin titled, *Techniques of Follow-up of School Leavers*.² Michigan and New York have also published such studies, but they are no longer available.

¹ Edward Landy, *The Occupational Follow-up and Adjustment Service Plan*, 4-151, Bulletin. Washington, D.C.: National Association of Secondary School Principals, No. 24 (November, 1940).

² Royce C. Brewster and Franklin R. Zeran, *Techniques of Follow-up Study of School-Leavers*, pp. 1-4, United States Office of Education, Bulletin No. 7. Washington, D.C.: Government Printing Office. (Replaces Bulletin, "Misc. 3038.") (This Bulletin is published by the California Test Bureau, 5916 Hollywood Boulevard, Los Angeles 28, California, and is distributed gratis.)

Karl Guenther is comptroller at the Sacramento (California) Senior High School, a position he has held for the past two years. He formerly taught in the Commercial Department at Sacramento Senior High School. Dr. Guenther's article is based on his doctoral dissertation which was completed at Stanford University in 1950.

Analysis of Techniques

The techniques used in the twenty-six basic investigations were analyzed under the main headings of (1) Background Data of Theses Analyzed in This Study, (2) Follow-up Studies Classified According to Types, (3) Analysis of Purposes, (4) Analysis of Reasons of Importance, (5) Methods of Securing Data, (6) Interview Techniques Studies, (7) Selection and Limitation of Numbers of Individuals Followed-up, (8) Mechanics Used, (9) Analysis of Questionnaire Returns, and (10) Time As an Element of Follow-up.

The geographical distribution in California of the schools in which follow-up studies were made was wide. They ranged from San Diego on the south to Eureka on the north, and from Oakland on the west to Sonora on the east. The schools ranged in size of student bodies from 66 to 2751. The time of initiation of the studies included the years 1931 to 1948. These studies ranged from one year in length to thirty-seven years. The types of studies included those of general purposes (12), general commercial (3), special commercial (3), girls (3), vocational (3), and Smith-Hughes (2).

The analysis of the purposes of the studies under investigation revealed that there were 17 different kinds. The purposes of the highest frequency were:

1. To discover the occupations, interests, and additional training of an unselected group of graduates in order to develop an adequate curriculum.
2. To secure from the graduates an evaluation and a criticism of the work they took while in high school and their suggestions for the improvement of the guidance services of the high school.
3. To provide a program of instruction more nearly in line with the youth's after-school experiences.
4. To compare the achievement and interests of the graduates with their achievement and interests while in school.

The three most significant reasons which the 26 investigators presented for the importance of their studies were:

1. To evaluate the school's guidance and educational procedures.
2. To answer the need for research in guidance, i.e. What to do. How to do it.
3. To provide a foundation for curriculum development and/or revision.

The questionnaire was the most commonly used primary method for gathering the required information. The interview method was used as the primary method in four instances. In several studies a combination of these two methods was used for obtaining supplementary information or for purposes of verification.

The subjects selected for follow-up purposes were in a large measure determined by the type of follow-up study which was made. In the general

studies, usually all these students were followed-up: (1) those who graduated within a given period, and (2) those whose addresses were available. In other studies only those students who fell within the limitations of the indicated curriculum or sex were followed-up.

The percentage of questionnaire returns ranged from 21 to 97. The number of returns appear to be a function of two mechanics: persistence in reminding laggards to return the questionnaire and close checking of the mailing lists. This matter of obtaining maximum returns was neglected in several of the investigations, and as a result the percentage of returns was of a low order.

The evidence on the optimum time for making a follow-up study and the time allowed for questionnaire return was meager and no definite conclusions were forthcoming.

Analysis of Data Sought in Follow-up Studies

The questionnaires used in the different studies were analyzed in order to determine the types of data which were considered to be important by those who made the studies. The questionnaires were analyzed under four main headings of: (1) Over-all Analysis of the Questionnaires, (2) The Data Commonly Covered, (3) The Data Required in a Minimum Survey, and (4) The Data Included in a Maximum Survey.

The fundamental basis of judging the number of questions to be included in a minimum or maximum survey was determined by the results obtained for amount of effort expended. On this basis the following conclusions for the construction of a questionnaire were reached:

1. A minimum survey should include not more than ten questions or main sections.
2. A maximum survey may gather all the desired material by using 29 questions.
3. Similar questions should be grouped together in a format which is conducive to evoking the maximum thought on a given phase at one time.
4. Related subordinate questions should follow a logical pattern after each main question.
5. All questions which deal with material obtainable from another source should be eliminated from the questionnaire.
6. Only those questions should be included which are:
 - a. Pertinent to the purpose of the study.
 - b. Concerned with conditions over which the school has some control.

The foregoing principles were incorporated in two questionnaires, one for a minimum and one for a maximum survey. These two questionnaires are included in the manual for making follow-up studies.

Analysis of the Findings of the Theses Under Consideration

The findings of the several studies were presented in tabular form. Some of the personal findings which related to activities in school, attendance beyond high school, reasons for not attending school beyond high school, and so forth, were presented as averages of the percentages; each item was given in terms of the thesis from which it came. The impersonal items which related to courses and suggestions for improving the school's practices were tallied from the high frequency ones. From the data presented, the following conclusions are drawn:

1. Nearly two-thirds of the former students attend some school after high school.
2. By far the greatest single class of school attended is the college or university. The percentage, 46.3 (of the two-thirds who go on) was for those who started that type of school. This group is subject to the normal drop-out rate.
3. Financial reasons accounted for the largest number who did not continue school after high school.
4. Ill health was the major reason given for not finishing high school. Close behind came the reasons of: "To be married," "Of age," "Needed by the family," "Private school," and "Wanted to work."
5. In types of employment held, the clerical and professional classes outrank the others by a good margin. The professional class was large by reason of the large number of girls who became teachers, and the selective nature of the studies which in most cases considered no drop-outs.
6. Statistics proved that the students own initiative provided the best method for finding a job. This method, however, also resulted in the highest job turnover.
7. Within the time limit of the survey, 40 per cent of the graduates had held only one job, and two-thirds had held no more than two jobs.
8. Nearly one-half of the graduates were hired within one month after graduation, and 80 per cent had jobs before six months had passed.
9. The salary data showed a mixed trend. Contrary to the implications of economic conditions in the 1930's, the beginning and present salaries were higher than in the early forties. The salaries in 1947 and 1948 show a definite superiority in line with the high economic level.
10. Generally, there was a good relationship between the choice of vocation made in high school and the adult vocation. However, there is still reason to believe that there is need for better vocational guidance in the school.
11. Approximately four-fifths of the graduates were satisfied with their jobs.
12. Subjects which led to employment and those which served as foundations for college training were the ones chosen most often as being of greatest value.
13. The so-called practical arts courses were selected as necessary training by those who were not entirely satisfied with their other high school courses.
14. The former students indicated that clubs, sports, and social activities, in that order, prepared them best for their post high school leisure time activities.
15. Social clubs, churches, and hobby clubs were the organizations which these ex-students joined after leaving school.
16. Slightly less than one-half of the boys and one-half of the girls were married at the time of these various reports.

17. A little more than two-fifths of the former students stayed in their local areas. The rest spread out in varying distances within the state and outside the state.
18. Suggestions for improving the school's offerings show a need for information to aid in the selection of an occupation, and for better training for success in an occupation. There is also need indicated for the fundamentals of English and mathematics, for self-knowledge, and for training in household management. A marked request for orientation and preparation in college preparatory subjects was made by those who went to college.
19. In the field of general school training, the suggestions were not clear nor overwhelming in any one phase. There was a general request that the training be broadened and be made more practical.

Among the more common conclusions of the writers of the various theses were that: (1) choice of vocation, placement in that vocation, and a check-up on the success of the individual in that vocation were functions of the school, and (2) better educational and vocational guidance was needed.

Conclusion

The foregoing has been a brief summary of the techniques of follow-up which were employed in the basic theses and of the cumulative findings of these theses. For those who are interested in a fuller exposition of the techniques of follow-up studies, the author has prepared a manual for making follow-up studies. This manual is available for the cost of mailing.

"We are under the stern necessity of dealing somehow with the criticism that our schools are neglecting the three R's. Several courses of action are open to us. (a) We may deliberately adopt a do-nothing policy and view the criticism as a transient nuisance that will pass shortly if we pay it no heed. To take this position is, in my opinion, fraught with real danger. At best it must lessen respect for the quality of our professional leadership and statesmanship; at worst, it can feed the flames of criticism and lead to a much worse conflagration. (b) We can angrily denounce our critics as trouble-makers bent on the destruction of our public schools. Some of our critics unquestionably belong in this category, but probably not many. The rest deserve something better than contemptuous invective. (c) We can try to prove the criticism to be groundless by collecting data to show that achievement in the three R's is higher today than it was twenty or thirty years ago. This third course of action is at least positive and honest, and I believe that we should make full use of it." — (Excerpt from address, "The Three R's and Today's Schools," by Dr. William A. Brownell, presented March 10, 1952, at the 78th Annual Conference, American Association of School Administrators, Los Angeles)

Analysis of Student Personnel Problems and Counseling Practices at Junior College Level

LEIGH M. DODSON
Los Angeles City College

THIS study was undertaken in order to clarify and define junior college problems and to make possible improvement in the counseling of Los Angeles City College students. Entrants who had come directly from high school graduation were segregated for detailed investigation. From the students entering Los Angeles City College in September 1948, 1401 local high school graduates were selected at random and their progress was followed for two and one-half years.

Description of Sample

In the group selected thirty-three out of the thirty-five Los Angeles high schools were represented; however, eighty-two percent of the group came from thirteen high schools. The study group was surprisingly evenly divided between men and women (708 to 693) even though the distribution in the day college enrollment was sixty-six percent men. Local norms on the entrance test (American Council on Education's *Psychological Examination for College Freshmen*, 1946 Edition) indicated a difference in academic ability in groups coming from the various high schools. Sixty-five percent of the students were from homes in which neither parent had attended college, and fourteen percent were from families that had no high school education. In eighteen percent of the families, both parents were working. The managerial and skilled occupational families were predominant with very few students from families of the unskilled and personal service occupations. Ten percent of these students had met the high school entrance requirements for the University of California. Forty-nine percent indicated prospective majors that would require more than two years of college, and half of the majors stated at the time of entrance were in the business and natural science fields.

Leigh Marian Dodson is counselor at Los Angeles City College where she has taught for the past 11 years. She formerly taught biology at the University of California, Los Angeles. Her article is a digest of her doctoral dissertation which was completed at the University of California, Los Angeles, in 1951.

Attendance

Fifty percent of the original 1401 students registered for the fourth semester, and twenty-five percent, for the fifth semester, at Los Angeles City College. The percentage of men over women students gradually increased until, in the fifth semester, sixty-three percent were men. About six percent of the regular day students changed to evening sessions, and twenty-six percent attended one or more summer sessions.

Withdrawals

The desire or need for work was a major factor in causing students to withdraw during a semester. Illness and poor class work were also factors motivating a considerable number of withdrawals. More men than women withdrew. The primary reasons for students not returning after completing one or more semesters were transfers into other institutions, employment, and disqualifying grades. Eighteen percent of the high school study group was disqualified. Of the students who would be expected to leave because of graduation, forty-three percent transferred to other institutions, seventeen percent returned for more work at Los Angeles City College, and twenty-eight percent went into full-time employment with no class attendance.

Counseling Experience

Eighty percent of the 1401 students were given advice by the counselors through group meetings, individual conferences, and withdrawal interviews; forty-six percent had more than one meeting with the counselors. Through 1146 individual conferences, 603 students sought for information and help; more men than women sought this service. About twenty-two percent of the attending students asked for interviews each semester. Educational advice and counseling was sought for the most; this was directly or indirectly the topic of conversation in seventy-six percent of the interviews. Vocational advice, which comprised twenty-one percent of the conferences, was next in importance.

Educational Experience

On the basis of this selected group study, twenty-one percent of the high school graduates entering Los Angeles City College may be expected to graduate with the Associate Arts degree. The grade average of the graduates in this study was 1.19 (C is 1.00). Less than four percent of the group made the all-college honor society, which requires a 2.2 grade average. Forty-five percent of the students elected one or more vocational

courses. In reviewing areas of student failure, it was found that students earned as many poor grades in the vocational courses as in the so-called academic subjects. The majors were about equally divided between vocational and academic curricula in the graduates. As many women as men registered, although more women were in the vocational majors and more men in the academic majors. Sixty percent of the students had the same goal when they graduated as when they entered; only seven percent changed their objective from academic to vocational goals.

Scholastic Experience

When work taken at transfer institutions was included in tabulations, it was found that thirty-three percent of the group had completed at least sixty units during the period of this study. The transfer students earned a 1.47 grade average at Los Angeles City College as compared to 1.37 grade average at the transfer institutions. Those who transferred to state colleges made better grade averages by .33 grade points than those who transferred to universities. Thirty-four percent of the group had better grade averages at the transfer school, and twenty-one percent a lower grade average than earned while in attendance at Los Angeles City College. In a detailed study of the transfers to the University of California, it was found that they did as well as the students who go there directly from high school, and that they earned better grades than the average junior college transfer student.

Employment Experience

In analyzing the jobs that students obtained when they left school for employment, it was found that more students entered employment in the business field than in all other areas combined. The semi-professional or terminal curricula that appeared to be most functional for early employment were bookkeeping, clerical, dental assisting, general office, typing, and secretarial. Over one-third of the entering group applied for jobs at the Los Angeles City College Placement Office; more women than men applied and obtained jobs. Part-time referrals for jobs were three to one over full-time referrals. Of the individuals applying for jobs, forty-eight percent were given job referrals and sixty-five percent of the referrals resulted in job placement. Part-time employment was found primarily in the clerical, domestic and personal service, and gardening areas.

Factors Related to Academic Success

In dealing with the many factors that might be related to student success or failure, it was again found that there were no outstanding and

definite clues which might predict, to a counselor, the exact chances of a student's future academic direction. The educational or occupational background of the parents was shown not to be closely related to graduation or disqualification of Los Angeles City College students. The economic area from which the students came was only slightly related, but positively, to the student's success as measured by disqualification and graduation. The Total Percentile on the Thurstone *Psychological Examination for College Freshmen* did differentiate between the successful, graduated student and the unsuccessful, disqualified student. The grade averages earned, the number of graduates, and the number of university and college transfers all compared positively with the Total Percentiles on the Thurstone Test. The variable success of students from different high schools indicated that the counselor might use the high school from which a student graduated as an additional prognostic tool to be combined with the Thurstone Percentiles to help direct the counseling interview.

Conclusion and Implication

The facts elicited in this study give a more solid basis for counseling procedures at Los Angeles City College and are of potential value to other comparable junior colleges. The approach to junior college research through separation of the entire student body into component groups seems to open up a method of study that will lead to usable facts and figures.

Is Your Questionnaire Showing?

Whenever you get a questionnaire
Fill it out promptly and with care.
If a question requires just "yes" or "no"
Answer that way and let it go,
Don't write "doubtful" or "maybe so."
And if it's a figure they're asking for
Give one that's right, not less or more,
For if your answers seem very screwy
The tabulator will just think "Phooey!"
I can't help what the boss may say,
I'm throwing this questionnaire away!

SUE CHAMBERS
CTA Research Technician

Patterns of the Slow Developer

GUY CHAPMAN

Tulare (California) County Schools

In 1947 the state of California enacted legislation towards further utilization of the human resources of the state. This legislation was specifically directed towards the type of exceptional child known as the mentally retarded minor. It was felt at this time that these children should be given consideration and special assistance in developing their potential in order that they might assume their place in our society as competent well-adjusted citizens.

Definition

Doyle in his "Questions on the Education of Mentally Retarded Minors in California," (4) defines these individuals as: "All minors of compulsory school age who because of retarded intellectual development as determined by individual psychological examination are incapable of being educated profitably and efficiently through ordinary classroom instruction but who may be expected to benefit from special educational facilities designed to make them economically useful and socially adjusted."

Purpose of Article

Basic considerations for operation of this program were selection of students, curriculum, and qualified personnel. This article will be concerned largely with student selection with emphasis upon the unique characteristics of these individuals that classify them as candidates for a special class.

The California Education Code has stipulated that selection be made on the basis of "individual psychological examination." In effect, an adequate selection rests upon the evaluation of many areas, namely: educational development, physical condition, socio-economic status, psychobiological development, and psychosocial history. If these areas are not considered parts of the psychological examination, the selection procedure becomes inadequate.

Guy Chapman is psychometrist in the Tulare County (California) Superintendent of Schools Office. He attended San Jose State College and obtained his A.B. degree in 1949.

Selection of Mentally Retarded

There is at the present time a committee on Problems of Selection of Children for Special Classes for the Mentally Retarded. This committee, which was appointed by the chairman of the Exceptional Child Committee of the California Schools Supervisors Association, has outlined a suggested procedure to follow in setting up such a class. The procedure consists of 6 steps: 1. Group Intelligence Tests; 2. Referral Sheets; 3. Individual Psychological Examination; 4. Group Conference; 5. Consultation with Parents; and 6. Follow Up.

This suggested procedure, with minor deviation, has been consistently followed in the establishment of classes in California. In connection with the first step, it has generally been found that the mentally retarded child will score below 90 and above 50 I.Q. in an initial screening group intelligence examination. The writer has found, using the *California Test of Mental Maturity*, Primary 47S form, grades 1-3, and Elementary 47S form, Grades 4-8, that the slow developer will range from 65-90 I.Q. Those falling within this range usually succeed in obtaining a higher score in the non-language subtests of this examination.

When these lower range I.Q. children are re-examined individually with the *Stanford Revision of the Binet-Simon*, or any other reliable scale as the *Wechsler Intelligence Scale for Children*, *Arthur Point Scale of Performance*, *Cornell-Coxe Performance Ability Scale*, or the *Goodenough Draw-a-Man Test*, they continue to range between a 65 and 90 I.Q. It is during this individually administered examination that other patterns of retardation begin to make themselves known. This individual examination usually reveals a child of phlegmatic nature. He seems prone to respond slowly to any direct questioning. When a verbal response is required, it is generally short and faulty in construction. The child seems less sensitive to the immediate environment and is inadequate in expression of feelings and past experiences. Garrison (5) states that speech difficulties are frequently encountered with the mentally deficient. He further states that the inadequacy is usually with consonant sounds rather than vowels. The thinking of the retarded child through the individual examination tends to be concrete rather than abstract. Goldstein's monograph (6) defines this dichotomy of behavior very effectively and is quite useful in recognizing these characteristics in the slow developer.

Characteristics of the Retarded Child

The retarded child further tends to respond more favorably to spatial relations than to reading or arithmetic. Cruickshank (3) reported a distinct difference between two groups of boys performing in an arithmetic test. The normal group was significantly superior to the mentally retarded group in designating how particular arithmetic problems should be

worked. The *Stanford Binet* further reveals traits of inadequate reasoning and short attention and retention span in the child that develops slowly.

Continued examination of data collected from the school nurse, principal, and parents reveal other atypical characteristics. The medical record frequently discloses a child of inferior physical development. Cole and Morgan (2) report that the dull and dull-normal child has peculiar developmental patterns of growth. They report a tendency for the bones to harden more slowly and for the teeth to erupt later. They also claim a noticeable difference in cephalic index. The head of the dull or dull-normal tends to be smaller in all dimensions. Other literature in the field indicates that the slow learner tends to have more physical defects than the normal child. Kempf and Collins (8) found in a study, where both physical and mental examinations were made, that the average number of physical defects decreases as the intelligence quotient rises. The writer has found that an interview with the parents frequently reveals earlier patterns of slow development. From the psycho-biological standpoint the parents are prone to relate that the child did not walk as early as his sibs and that he was a "slow talker." The phrase "slow talker" can be seen to have duality of meaning; however, both meanings relate quite directly to retarded psycho-biological development. If the whole developmental pattern, including bowel control, bladder control, (daytime), bladder control (nighttime), sitting alone momentarily, crawling, standing alone, walking alone, and talking, occurs late it purports strong evidence of feeble-mindedness or borderline ability.

Educational Progress

The educational progress of the child becomes a valuable criterion in the selection of these students. Data collected from the school teacher and administrator usually reveal some children with 3 and 4 grades retardation. Educational achievement tests frequently widen this gap to 5 and 6 years in the upper grades. Some facility for "rote memory" can partially account for the child's progress to these upper grades. The retarded child's school experiences are important factors for consideration in revealing deviate patterns of a qualitative nature. Barker (1) lists five qualitative characteristics that he has found universally present in the slow-learning child. He points out that the slow-learning child is capable of only simpler forms of associative learning; that they prefer manipulation of the concrete rather than attempted understanding of the abstract, a fact mentioned earlier in this paper; that their reasoning ability is generally weak; that they prefer short and simple units of work; and that their social lives are narrow and somewhat restricted. The Illinois Commission for Handicapped Children (7) has advocated that a continuing school census system should be in operation for the purpose of examining all children retarded three years or more in school. The California State Department of

Education also feels that school retardation of more than two or three years is indicative of mental retardation (4).

Social Aspects

Thus far the psycho-social aspect has not been too helpful in the selection of the slow developer. The inability to obtain reliable and accurate information regarding the type of treatment the child received in infancy, and the success he has had in adjusting to other children, has probably deterred the utilization of this important factor. Garrison (5) reports that there is accumulating evidence that mental retardation results from inadequate environmental stimulation. If such be true, the psycho-social and socio-economic factors that have been in operation during the child's early development bear more intensive investigation and evaluation. In later years the slow developer evolves a life pattern that more explicitly designates his handicap. He constantly moves from one job to another and is consequently found on the lower end of the socio-economic scale. He has encountered little success during his life experiences. The backlog of failures becomes so great that further attempt is hazardous because of the inevitable failure, so he ceases to try. The resulting individual is, for all intents and purposes, useless to himself and the society in which he finds himself. Thus, recognition of the slow developer becomes useless unless he is given goal-oriented activity; activity that will train him to take his place in a competitive society; activity that will cause him to be socially adaptive.

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Research News and Views

A statistical composite of city and rural superintendents of schools was recently reported by the American Association of School Administrators following a two-year study of the Association. The 464 page report, "The American School Superintendent," reveals the following information about the average superintendent: he is a married man 48 years of age, with 5.7 years of college preparation and 25.4 years of experience in school work, of which 10.4 years were as superintendent. Only 6.8 per cent of the superintendents were reported to be women. The superintendent owns his home, participates in a public retirement system, and serves under the terms of a written contract. He may receive an annual salary of less than \$3000 or more than \$30,000; he averages 57.8 hours a week at his duties.

* * * * *

The *Junior Guidance Newsletter*, published by Science Research Associates, in its December 1951 issue, reports on a survey of the reactions of 367 school administrators to their report cards. Of the 367 administrators contacted, 366 stated flatly that they were dissatisfied with their report cards. Of the 367 elementary schools reporting from 39 states, 60 per cent used the percentage system or A; B, C, D, F system of grades. The consensus is that the H (Honors, for definitely superior work), S (Satisfactory), N (Needs improvement), and U (Unsatisfactory) is a better grading system. The main defects in present reporting systems were believed to be: (1) few schools really know what purposes they want their cards to serve; (2) few schools are sure of what they want to evaluate — and report; (3) few schools have decided what basis of comparison to use in giving marks; and (4) most marking systems are notoriously unreliable. Suggestions are offered in the *Newsletter* for the improvement of reporting systems.

* * * * *

Attitudes of present and former pupils, parents, teachers, and administrators regarding homemaking education in grades 9-12 of the secondary schools of California will be studied in a cooperative research project being sponsored by the Bureau of Homemaking Education, State Department of Education, and the Department of Home Economics of the University of California, Los Angeles.

In the spring of 1951 pilot studies were conducted in several areas of the state. The major study will be undertaken in the spring of 1952. In preparation for this, contacts are being made with fifty-two schools selected by a method of random sampling. In terms of total school enrollment, size of community and location, this sample adequately represents all high schools within the state which offer homemaking education programs.

It is expected that this study will have three major values. It should (1) indicate how and where present courses have helped pupils; (2) point up the needs and interests of the high school pupils; and (3) have implications for strengthening the program of teacher education, both pre-service and in-service.

* * * * *

Television is a key to the rapid training of large groups of people. This is the verdict of professional educators who evaluated the possibilities of TV as a training medium and reported their findings in a Navy research project just made available to the public through the Office of Technical Services, U. S. Department of Commerce. *Training by Television* is the title of the report, which was prepared by the Navy Special Devices Center in cooperation with Fordham University. The report presents the principal findings of an experimental study which compared training of Naval Reservists by live television with training by recorded TV and by standard classroom procedures. Live and canned TV programs were found to be on a par, and in general both were superior to the classroom instruction. The report details the procedures followed to keep the tests objective. It concludes with a list of fundamentals that must be met if television is to be successfully exploited for rapid, mass training.

* * * * *

An interesting approach to the study of the efforts of the states to support public education is reported by Ralph Calvin Geigle in the December 1951 issue of *The Elementary School Journal*. The study, based on the author's unpublished George Washington University doctoral dissertation, presents statistical analyses of the relationships among the factors of *effort*, *expenditure*, and *ability*. Some of the findings were:

1. There was no significant correlation between the efforts exerted by the respective states to support public education and the amounts actually expended to support that education.
2. There are high correlations between the abilities and expenditures of the states to support public education; the highest correlation was found for 1937 when it reached .891.
3. Efforts and fiscal ability of the states to support public education consistently showed negative correlations; e.g., in 1947 the r was -.629.

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The latest report of the Bureau of School District Organization of the California State Department of Education shows that California on July 1, 1951, had a total of 2049 school districts. The distribution of types of districts was as follows:

68 unified
46 city school districts
1303 regular elementary school districts of all classifications
387 union and joint union elementary school districts
225 high school districts of all classifications
20 junior college districts

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The predicament of the nation's schools is described in a recent news release prepared by the National Education Association. Shortages in qualified manpower and decreased purchasing power, according to the NEA report, have placed the nation's schools in a crossfire at the same time they are confronted by increased demands for school services. Some of the facts disclosed by the report are:

1. Sub-standard (emergency) teaching certificates totaling 70,691 are in use in 1951-52.
 2. A total of 26,567,374 students are enrolled in public elementary and secondary schools this year, an increase of 800,000 over last year's total.
 3. An estimated 400,000 of these students are receiving less than full-time school opportunities due to current shortages in teacher supply and building facilities.
 4. The average salary for classroom teachers throughout the nation this year will be \$3,167; three per cent will be paid less than \$1,500 and an additional 21 per cent will receive between \$1,500 and \$2,400.
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"In the past we not uncommonly urged children to learn **today** to read, to write, to do arithmetic, and to acquire information because '**some day**' they would have need for their knowledge and their skills. It is still true, we know, that what our pupils learn in the present they will have occasion to use in the future, but we also know that occasion for use does not guarantee actual use. Knowledge and skills do not 'keep' well in cold storage. Indeed, the quicker learning products are 'frozen,' the more perishable they seem to be. One of the best forms of insurance that children **will** use what they learn is experience in using it as they acquire it." — (Excerpt from address, "The Three R's and Today's Schools," by Dr. William A. Brownell, presented March 10, 1952, at the 78th Annual Convention, American Association of School Administrators, Los Angeles)

Retired university professors are being given an opportunity to return to the classroom, according to a report prepared for UNESCO by Eileen J. Martinson. The American Adult Education Institution is sponsoring the new venture, one that breaks with educational tradition and that offers a stimulating challenge to both teacher and student.

When a university professor reaches his 65th or 70th birthday, rigid retirement rules usually require that he leave his classroom and enter a life of enforced leisure, although he still may have valuable contributions to make. At the same time, there are many adults who want to continue the learning process, with the added stimulation of studying under men of maturity.

In a pilot project, the New School of Social Research in New York City during the present year is putting experienced professors back into harness. The New College of Retired Professors has been formed with a panel of ten, each a recognized authority in his field, drawn from leading colleges and universities throughout the United States. Their combined ages total 706 years. The program is financed by the Alvin Johnson Fund, with Dr. Johnson serving as president emeritus of the New School.

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In the summer of 1951 the school of education of the University of California, Berkeley, in cooperation with the National Council of Chief State School Officers, sponsored a cooperative work-conference on "State-Local Cooperation in Improving the Educational Program." Participating in the conference were representatives of State Departments of Education, State Education Associations, universities, and school administrators. Problems discussed at the conference were:

1. Local school system — State Department cooperation.
2. State college and university — State Department cooperation.
3. State professional organization — State Department cooperation.
4. Lay citizen — professional cooperation in improving the educational program.
5. Development, characteristics, and use of minimum standards.
6. Organization and program for effecting improvement through State leadership and state-local cooperation.

The report of the conference is available through the Department of Conferences and Special Activities, University Extension, University of California, Berkeley.

CLASSIFIED BIBLIOGRAPHY OF GRADUATE THESES AND DISSERTATIONS IN EDUCATION OF CALIFORNIA COLLEGES AND UNIVERSITIES IN 1951

This classified bibliography includes the titles of all theses and dissertations completed at California colleges and universities in 1951. For the sake of convenience, the following categories are used to classify the studies:

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| I. Historical and Comparative Education | VI. Teacher Selection and Education |
| II. Curriculum | VII. Educational Sociology and Philosophy |
| III. Growth and Development | VIII. Higher Education |
| IV. Teaching and Learning | IX. Administration and Finance |
| V. Guidance and Counseling | X. General and Miscellaneous |

To save space, colleges are designated as follows:

Chico State	Chico State College, Chico
Claremont	Claremont College, Claremont
Fresno State	Fresno State College, Fresno
Humboldt State	Humboldt State College, Arcata
Occidental	Occidental College, Los Angeles
Pacific	College of the Pacific, Stockton
Redlands	University of Redlands, Redlands
Sacramento State	Sacramento State College, Sacramento
S. F. State	San Francisco State College, San Francisco
S. J. State	San Jose State College, San Jose
Stanford	Stanford University, Palo Alto
U.C.	University of California, Berkeley
U.C.L.A.	University of California at Los Angeles
U.S.C.	University of Southern California, Los Angeles
Whittier	Whittier College, Whittier

Masters' theses are to be found on pages 130 to 139; Doctors' dissertations are on pages 139 to 144. Copies of these studies are available for circulation and may be obtained by writing to the library of the college or university listed.

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- Arnstein, George E., *The Struggle for Autonomy in the Early Medieval Universities.* (U.C.)
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- Charland, Gustave Marquis, *The Herald of Modern Education (Comenius—His Life; His Works).* (U.C.L.A.)
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- Beaumariage, George N., Jr., *Radio in a School's Public Relations Program.* (Stanford)
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- Cleaver, Lowell Henry, *A Study of the Causes and Methods of Combatting Truancy.* (U.S.C.)
- Curran, Benjamin O., *An Experimental Study of Group Work in Guidance.* (Stanford)
- Deal, Gerald V., *A Study of the Vocational Opportunities in Pomona Valley for Mexican-Americans: A Study in Counseling.* (Claremont)
- Edgren, Robert Durand, *Teacher-Pupil Rapport.* (Stanford)
- Edmunds, David W., *The Vocational Interests of Unitarian Ministers.* (U.C.)
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- Hannon, James T., *A Comparison of Two Questionnaires Designed to Diagnose the Problems of Junior High School Students.* (U.C.)

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- Holder, Leland, *An Investigation into Some Interests of a Seventh Grade Group at Walnut Creek Elementary School, California.* (U.C.)
- Kermeen, Barbara Gay, *A Factor Analysis of the Differential Aptitude Tests and a Factor Analysis of the Kuder Preference Record, Vocational.* (U.C.)
- Kinevan, Barbara, *Some Specific Aspects of the Relations Between a School in Contra Costa County and the Mothers of Eighth Grade Students in That School.* (U.C.)
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- McKeever, Albert R., *County Resources for Improving Student Adjustment in San Jose, California.* (Stanford)
- Melby, Elvera Giorgi, *A Study of the Mental Attitudes of Lodi Union High School Girls Toward the Physical Education Program.* (Pacific)
- Moore, Maurine Lenore, *Trends in Selected Pupil Personnel Factors in Ventura County.* (U.S.C.)
- Padia, Morris J., *The Status and Development of Secret Clubs at Whittier Union High School* (Whittier)
- Peterson, Leander H., *A Study of the Relative Validity of Q. L. and Total Scores of the American Council on Education Psychological Examination for Entering Freshmen.* (Chico State)
- Roeder, Alfred K., *A Study of One Hundred Truants at a Richmond, California, Junior High School.* (U.C.)
- Rogers, Kenneth W., *A Survey of Health Habits of Boys and Girls of Stockton High School.* (Pacific)
- Rubin, Stanley B., *A Scale of Morale in the Minnesota Multiphasic Personality Inventory.* (U.C.)
- Slayton, Dorothy N., *Post-High School Status, Activities, and Reactions of Recent Graduates of Tracy Union High School.* (U.C.)
- Stevens, Edwin Augustus, *Opportunities for Re-Education of the Juvenile Delinquent in Los Angeles County.* (U.S.C.)
- Stocks, William David, *Current Practices in Student Government in a Selected List of California Elementary Schools.* (Redlands)
- Tarr, Muriel Irene, *The Development of a Counseling and Guidance Program at a California State College.* (Stanford)
- Thomas, H. Gene, *Adjustment Problems of Ninth Grade Students as Indicated by Students and Parents.* (Stanford)
- Ton, Paul, *The Opinions of Parents, Schools, and Students Concerning the Problems of High School Boys.* (Stanford)
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- Wilson, Andrew Charles, *An Evaluation of the Cumulative Record Used in the Elementary Schools of the Long Beach School District.* (U.S.C.)
- Wright, Robert George, *Means of Promoting Mental Hygiene Among Eighth Grade Boys.* (U.S.C.)

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- Becker, James, *School Programs in California County Juvenile Halls with Recommendations for a Juvenile Hall Teacher Training Program.* (S. F. State)
- Jacobus, Gerald Leland, *In-Service Education of Emergency Teachers in Kings County.* (Stanford)
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- Ranetta, Lorna Gwenllian, *A Survey to Discover the In-Service Needs of the Teachers of Northeastern California.* (Chico State)
- Regal, Jacob M., *The Measurement of Teachers' and Student Teachers' Attitudes Toward Eight Ethnic Groups.* (U.C.)
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- Tendick, Owen L., *Requirements for a Future High School Plant.* (Stanford)
- Thomas, Meredith Hugh, *Revision of Reporting in the Bakersfield City School.* (U.S.C.)
- Waldrup, S. E., *A Preliminary Study of the Effects of Certain County, State, and Federal Acts and Practices on Local School Administration in California.* (Claremont)
- Wheat, Emmit Rowland, *A Study of Corcoran Joint Union High School Drop-Outs for the School Year 1949-50.* (Pacific)
- Youngblood, Harold B., *A Study of Inter-District Attendance Agreements in the Elementary School Districts of Calaveras, Merced, and Solano Counties.* (Pacific)

General and Miscellaneous

- Amuedo, Helen Edmondson, *Great Books Lists: An Analysis.* (Stanford)
- Blair, John Warren, *Garland's and Lewis' Treatment of the Prairie Town as a Phase of American Realism.* (Chico State)

- Bowen, Norma C., *Educational and Health Services for the Mentally Retarded in San Francisco.* (S. F. State)
- Brock, Harris H., *General Elementary Credential Requirements in California Colleges.* (S. J. State)
- Buckingham, Maude A., *A Handbook for Parents of Cerebral Palsied Children.* (S. F. State)
- Collins, Murray Roland, *The Effect of Stride Length on Efficiency in Distant Running.* (U.S.C.)
- Ellis, Verna Mae, *A Comparison of the Picture Preferences of Teachers and Children.* (U.C.L.A.)
- Enright, Kathryn H., *A Survey of Home Instruction for the Blind Pre-School Child in Northern California.* (S. F. State)
- Erickson, Harold C., *A Study of Student International Correspondence in a Selected Senior High School.* (U.C.)
- Fain, Alfred P., *A Comparative Study of a Public Opinion Poll of the College of the Pacific, Stockton, California.* (Pacific)
- Frasier, Vance C., *Regular Phonetic Spellings Appearing in a Three Thousand Word Vocabulary.* (Stanford)
- Graves, James Harris, *The Attitudes and Policies of the American Federation of Labor Concerning Vocational Education in the United States.* (Claremont)
- Harden, F. Sheldon, *A Survey of the Techniques of Line Play in College Football.* (Pacific)
- Herwitz, Raymond Albert, *A Study of the Psychology of Perfume Advertising.* (Pacific)
- Hoffman, Paul J., *A Correlational Study of Transfer of Training.* (Stanford)
- Hollzer, Rose M., *Some Parent Education Practices in Selected Nursery Schools in Los Angeles County.* (U.C.L.A.)
- Isenberg, Virginia, *Democratic Attitudes in High School Newspapers.* (Stanford)
- King, Kenneth E., *A Study of the Value of a Structural Visual Non-Verbal Approach to the Analysis of Certain Personality Dimensions.* (U.C.L.A.)
- McClarty, Edward L., *The Development of Radio Station KRJC at Modesto Junior College.* (Pacific)
- Mjøset, Elaine Mina, *A Study of the Recreational Interests of Selected Students at the University of Southern California.* (U.S.C.)
- Morrison, Jack Sherman, *College Play Production Organization: A Survey, an Analysis, and a Recomendation.* (U.C.L.A.)
- Robichaux, Waldean Alice, *Practices, Point Systems and Awards in College Women's Intramural Organizations.* (U.S.C.)
- Salisbury, Mary Sladen, *The Academic and Social Adjustment of Freshman Women at Stanford: A Comparison Between Public and Private School Graduates.* (Stanford)
- Sheldon, Frank A., *Validation of the Differential Aptitude Tests in a Selected High School Population.* (Stanford)
- Stewart, Irene M., *An Annotated Bibliography for Parents of Speech Defective Children.* (S. F. State)
- Ward, Barbara K., *An Annotated Bibliography of Nature Study Aids for Grades One Through Six.* (S. J. State)
- Willey, Frank George, *A Study of Workers' Education in the Greater Los Angeles Area.* (Claremont)

DOCTORS DISSERTATIONS

Historical and Comparative Education

- Bell, Mary B., *Background and Development of Business Education in California Public Schools.* (U.C.L.A.)
- Luttrell, Raymond Stuart, *Mark Keppel—His Life and Educational Career.* (U.C.L.A.)
- Ouellette, Vernon Austin, *Daniel Coit Gilman's Administration of the University of California.* (Stanford)
- Peterson, Lawrence Leroy, *The Historical Development of the Problem-Solving Method in Education.* (U.S.C.)
- Petteys, Manville Robey, *Professional Training and Licensing Practices in Law, 1750-1950.* (Stanford)

Curriculum

- Bevans, Lloyd Ellsworth, *Administrative Practices in California Elementary School Principalships, 1933 and 1951.* (Stanford)
- Brown, Stanley Barber, *Science Information and Attitudes Possessed by California Elementary School Pupils.* (Stanford)
- Emery, Raymond Cecil, *Curriculum Construction in General Education.* (Stanford)
- Gentry, Adrian, *Biology in California High Schools and the Preparation of Biology Teachers in California Colleges and Universities.* (U.C.)
- Grantham, Herbert Harris, *The Science Curriculum in British Columbia with Emphasis upon the Secondary Level.* (Stanford)
- Gross, Richard Edmund, *Trends in the Teaching of United States History in the Senior High Schools of California.* (Stanford)
- Jensen, Grant Wesley, *Current Materials and their Instructional Use.* (Stanford)
- Kaar, Harold W., *An Evaluation of an Individualized Method of Teaching Reading in the Third Grade.* (U.C.)
- Kokjer, Ruth W., *Retail Merchandising Conferences as a Technique in Distributive Education.* (Stanford)
- McCarthy, Mary C., *The Local Community in Third Grade Social Studies; a Case Study in San Francisco.* (Stanford)
- Reeves, Warren Edgar, *Principles for the Evaluation of a University Physical Education Program.* (U.S.C.)
- Schoenfeld, Harold, *County Administration and Supervision of School Health, Physical Education, and Recreation.* (U.C.)
- Selim, Mohamed Sabor Ahmed, *Conservation Education in California High Schools.* (Stanford)
- Todd, Frances Eleanor, *Democratic Methodology in Physical Education.* (Stanford)
- Watts, Phyllis Welch, *Reading Improvement Through Co-operative In-Service Education of Secondary School Teachers.* (Stanford)
- Wilson, Donald Elmo, *The Development of Spelling in the Elementary Curriculum.* (U.C.L.A.)
- Wilson, Verner Frank, *Parental Attitudes Toward Public School Instruction on the Problems of Junior High School Students Relating to Boy-Girl Relationships.* (U.S.C.)

Growth and Development

- French, John E., *Children's Preferences for Pictures of Varied Complexity of Pictorial Pattern.* (U.C.)
- Gordon, Alta, *Physical Bases for Predicting Development in School Children: The Relation of Hand Bone Proportions to Body Type.* (U.C.)
- Ivan, John James, *Differences in the Social Maturation of Adolescents.* (Stanford)

Teaching and Learning

- Allen, William H., *An Experimental Study of the Effectiveness of Commentary in Educational Motion Pictures.* (U.C.L.A.)
- Bedoian, Bagharsh Hagop, *Sociometric Status and Personal Adjustment of Chronological Overage and Underage Pupils in the Sixth Grade.* (U.S.C.)
- Bird, Donald Elm, *The Teaching of Oral Language Skills in Freshman English.* (U.S.C.)
- Hunt, Jacob, *The Relationship of Structural Ability in Word Analysis and Ability to Use Context Clues to Vocabulary and Reading.* (U.C.)
- Goody, George Henry, *An Extra-Laboratory Investigation of the Psychogalvanic Reflex and Emotional Tension.* (U.S.C.)
- Lemen, Albert L., *A Comparison of Various Presentations in Securing Appropriate Student Responses to Biological Literature.* (U.C.)
- Nagle, Walter Albert, *A Pre-Service Course in Elementary Education.* (Stanford)
- Prouty, Helen L., *Personality Factors Related to Over- and Under-Achievement of College Students.* (U.C.)
- Ristow, Lester Wayne, *The Meaning of Transfer in Education.* (U.S.C.)
- Saylor, Herbert F., *The Elementary School Teacher as Class Art Instructor.* (Stanford)
- Schutte, Harriet, *An Investigation of the Relationship of Basal Metabolic Rate and College Scholarship.* (U.C.)
- Weldon, Richard C., *An Investigation of Relationships Between Attitudes and Achievements in French.* (U.C.)

Guidance and Counseling

- Bruch, Barbara, *Vocational Plans as Influenced by Three Experimental Guidance Procedures.* (Stanford)
- Clevenger, John Cowgill, *Student Personnel Services—Colorado Agricultural and Mechanical College.* (Stanford)
- Dodson, Leigh M., *Analysis of Student Personnel Problems and Counseling Practices in Los Angeles City College.* (U.C.L.A.)
- Dowley, Edith M., *Characteristics of War-Born Children as Revealed Through Mother Interviews.* (Stanford)
- Garry, Ralph Joseph, *Individual Differences in Ability to Fake Vocational Interests.* (Stanford)
- Geist, Harold, *Personality Test Scores and Medical Psychiatric Diagnosis Compared by the Inverted Factor Technique.* (Stanford)
- Jessen, Margaret S., *Parent-Child Cooperation in the Counseling Process.* (Stanford)
- Jewett, Ann Elizabeth, *Influence of Teachers' Information about Pupils on Pupil-Teacher Relationships.* (Stanford)
- Kahn, Theodore C., *Comparative Performance of Psychotics with Brain Damage and Non-Psychotics on an Original Test of Symbol Arrangement.* (U.S.C.)
- Larson, Carl A., *The Preparation of California Secondary School Counselors.* (Stanford)
- Manzano, Iluminado Billarinia, *The Relation of Personality Adjustment to Occupational Interests.* (U.S.C.)
- Montgomery, Jack Ernest, *The Interpretation and Application of Selected Tests and Other Evaluative Measures for the Selective Guidance and Counseling of Men Majoring in Physical Education.* (U.C.L.A.)
- Rathbun, Jesse Earl, *The Log Cabin Ranch School, a Program for Rehabilitation of Delinquent Boys.* (Stanford)

- Sessarego, Albert John, *Practices for Discovering Individual Pupil Needs in Selected Elementary Schools.* (Stanford)
Smith, Dale O., *A Criterion for the Study of Leadership in Certain Combat Groups.* (Stanford)
Tarwater, Jesse Wilson, *Techniques for Investigating Parent-Adolescent Interpersonal Understanding.* (Stanford)

Teacher Selection and Education

- Devine, John Robert, *An Analysis of the Difficulties Peculiar to Student Teaching.* (U.S.C.)
Golden, William P., Jr., *A Study of Human Relationships and Committee Processes on School Faculties.* (U.C.)
Hammer, Wendell Austin, *The Participation of Civilian Teachers in the Training Programs of the National Defense Establishments.* (U.S.C.)
Hawks, William Jewell, *Identifying Good Teachers.* (Stanford)
Mack, Barbara I., *Criteria for Studying Democratic Practices in the Preparation of Women Teachers of Physical Education.* (U.C.L.A.)
Ostlie, Selmer, *Selection and Assignment of Junior College Teachers.* (U.S.C.)
Rogers, Helen Jewett, *The Administration of Student Teaching in the Secondary Schools of Large Cities.* (U.S.C.)
Saum, James Arthur, *Selection Techniques and Their Application in the Stanford School of Education.* (Stanford)
Smith, Robert Raphael, *Three Conceptions of American Democracy: Implications for Teacher Education.* (Stanford)
Wandt, Edwin, *The Measurement and Analysis of Teachers' Attitudes Toward Groups Contacted in the Schools.* (U.C.L.A.)

Educational Sociology and Philosophy

- Johnson, M. Evelyn Lawlah, *The Educational Needs of Negro Youth.* (Stanford)
Lawrence, Irene Josephine, *A History of Educational Sociology in the United States.* (Stanford)
Rogers, Sidney Philo, *A Study of Educational Policies and Selected Practices of Mission Societies With Reference to Intercultural Education.* (U.S.C.)
Smitter, Faith W., *Experiences, Interests, and Needs of Eighth Grade Farm Children in California.* (U.C.)

Higher Education

- Corson, Louis D., *University Problems as Described in the Personal Correspondence Among D. C. Gilman, A. D. White, and C. W. Eliot.* (Stanford)
Fetty, Homer DeWitt, *The Feasibility of an Alternate Work-Study Program on College Level for Los Angeles Area.* (U.S.C.)
Gray, Harold Edward, *Evolving Conceptions of Communication in Higher Education.* (Stanford)
O'Byrne, Ernest Barbour, *The Research Institutes of Stanford University.* (Stanford)
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McLaughlin, Laurence K., *Student Population in University of California Extension Classes.* (U.C.L.A.)
Zunzer, Robert Ferdinand, *Robert Maynard Hutchins' Conceptions of the Functions and Structures of Higher Education.* (Stanford)

Administration and Finance

- Anderson, Carroll Darsie, *The Financial Support of Seventh and Eighth Grades in Junior High Schools Maintained by Union High School Districts in California*. (Stanford)
- Azevedo, Alfred, *The Content, Readability, and Readership of a Teacher Association Periodical*. (U.C.)
- Baker, Douglas Lee, *Provisions and Practices for the In-Service Training of School Board Members as a State Function*. (U.S.C.)
- Bratton, J. Wesley, *The Extent and Nature of Educational Legislation Obtained Through the Initiative and Referendum in the United States with Special Application to the State of California*. (U.S.C.)
- Bryant, David Logan, *Management of Retailing Services in California State Colleges*. (U.S.C.)
- Cornacchia, Harold John, *School Relationships to the Mental Health Services in Contra Costa County, California*. (Stanford)
- Cox, Ronald W., *Determinants of State Reimbursable Costs of Pupil Transportation*. (U.C.)
- Doss, Jesse Paul, *Tendencies Toward Centralization and Decentralization of Control in Educational Administration in California from 1900 to 1950*. (U.S.C.)
- Ferguson, Philip Mitchell, *Practices in the Administration of Adult Education in the Public Schools of California*. (Stanford)
- Flynn, Francis J., *An Appraisal of Innovations in Elementary Classroom Planning and Design*. (U.S.C.)
- Freeman, Sherman H., *Board of Education—Superintendent Relationships in the Los Angeles City School System, 1853-1920*. (U.C.L.A.)
- Garen, Bernard, *A Program of Equalization of Public School Transportation in Arizona*. (U.S.C.)
- Gerstbacher, Charles A., Jr., *Areas of Conflict in California School Administration*. (Stanford)
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- Kloepper, Ralph Ernest, *A Critical Analysis of the Professional Load of the Elementary School Principalship*. (U.S.C.)
- Lewis, Richard Byrd, *School District Reorganization in California, 1946-1948*. (Stanford) See also Roberts, Harold Burr.
- Luckman, Lloyd D., *Areas of Conflict in California School Administration*. (Stanford)
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- Nuttall, Drayton B., *State Aid for School Building Construction in Utah*. (U.C.)
- Roberts, Harold Burr, *School District Reorganization in California, 1946-1948*. (Stanford) See also Lewis, Richard Byrd.
- Sheffield, Herman James, *Methods Employed in Selecting the Chief Administrative Officer of School Districts*. (U.S.C.)
- Smith, Harold Watson, *The Recreation Authority of School Districts*. (U.S.C.)
- Sowards, George Wesley, *Supervisory Practices in California Elementary School Principalships, 1933-1951*. (Stanford)

- Tallman, Norman Orphens, *The Non-Use of Public School Buildings, Grounds and Equipment.* (U.S.C.)
- Tate, Norvell Glynn, *The Administration of Pupil Transportation in the Public Schools of New Mexico.* (U.S.C.)
- Van Vliet, Maurice L., *A Guide to Administrative Policies for Physical Education in Canadian Public Schools, Grades One Through Nine.* (U.C.L.A.)
- Walter, Robert Bruce, *Educational Functions of the County Superintendents of Schools in California.* (U.S.C.)
- Winward, Morris Hansen, *The Principles of Administrators Salary Schedule.* (U.S.C.)
- Wood, Lloyd, *The Relation Between School Offerings and Instructional Salary Costs.* (U.C.)
- Woodworth, William Orpen, *School Plant Planning for Educational Administrators.* (Stanford)

General and Miscellaneous

- Alia, Alex Dominic, *The Organization of Student Recreation Programs in Selected Large Institutions of Higher Learning.* (U.S.C.)
- Bacon, David Clarence, *The Teaching Problem of a Lay Church; A Study of the Educational Program of the Church of Jesus Christ of Latter-Day Saints.* (Stanford)
- Drayson, Ronald David, *Achievement and Satisfaction of "Native" and Transfer Students in Two Four-Year Colleges.* (Stanford)
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- Losee, Ferron Clark, *The Organization and Administration of Inter-Collegiate Athletics in the California State Colleges.* (U.S.C.)
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- Smith, Lenore Christine, *Administrative Organization of Outdoor Education Programs Through Public School Camping.* (U.S.C.)
- Strickler, Mervin Kinnard, Jr., *The Air Center as a Means of Implementing Aviation Education.* (Stanford)
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- Yarborough, John Milton, *Student Organizations in a University Personnel Program.* (Stanford)

